



SEQUENCE LISTING

<110> Perera, Ranjan  
Rice, Stephen  
Eagleton, Clare

<120> Compositions and Methods for the  
Modification of Gene Expression

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<150> U.S. No. 10/291,447  
<151> 2002-11-08

<150> U.S. No. 60/425,087  
<151> 2002-11-08

<150> U.S. No. 10/137,036  
<151> 2002-04-30

<150> U.S. No. 09/724,624  
<151> 2000-11-28

<150> U.S. No. 09/598,401  
<151> 2000-06-20

<150> PCT/NZ00/00018  
<151> 2000-02-24

<150> U.S. No. 60/146,591  
<151> 1999-07-30

<150> U.S. Patent No. 09/276,599  
<151> 1999-03-25

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atttctcact	ctaccactcc	aacttccttc	aaatgctgtg	agtttttggt	gtaattgccc	180
cgtctatttt	taatcgcagc	agcactcgtc	atataaagac	ccgtgtgtgt	gaacaacaac	240
caagtgattt	gaattggaaa	tgaagagcga	gaatggcggt	gtcatgaccg	ggagcaacca	300
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<210> 14

<211> 763

<212> DNA

<213> Pinus radiata

<400> 14

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tgtattttct	actctaccac	tccaactacc	actccaactt	attgccgcaa	aagagagagg	180
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aaaaaagaga	gattcccaat	atattttctca	actcccttca	aatgatttct	cactctacca	300

ctccaaactcc	cttcaaatga	tttctcactc	taccactcca	acttccttca	aatgctgtga	360
gtttttgttg	taattgcccc	gtctatttat	aatcgagca	gcactcgtca	tataaagacc	420
cgtgcgtgtg	aacaacaatg	gcggtgtctt	gactgggagc	aaccgcataa	agaaagtggg	480
cttcatacat	taaaaaaatc	tgtaaatttt	acggatttgg	aaaaaggaag	agcaggaggg	540

acctcccgc	ttgacccgag	aatggcggtg	tcttgaccgc	gtaaagaaag	tggtcttctg	600
tacccgactt	gacccgaaaa	aagaggaaac	gttgaacgag	acaatctctg	ggaacttcat	660
cgaaatgaac	ctcacgactt	gactctttcg	attgtactgt	tttcattgtt	cccgcgtaaa	720
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<210> 15  
 <211> 40  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

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<210> 16  
 <211> 51  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

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	51

<210> 17  
 <211> 27  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

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	27

<210> 18  
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 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

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	30

<210> 19  
 <211> 31



<212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 19  
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<210> 20  
 <211> 363  
 <212> DNA  
 <213> Eucalyptus grandis

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 atgtaagtta catgaaaaaa aaaaaaaagg atagtttggt ggaagtaat gagcatttgt 120  
 attgtgaaat tcacgataga gctaacaaaa ataaaggtag ttggtgggtt aaccagttta 180  
 aaaaagaaca ataatttgaa gagaggagag agagagagag gagggggaga gcatttcgat 240  
 aaattcacta gaaaaaatgc gtgttttagt ataaatgaga gtggaaatag ggccatctag 300  
 ggaacgatcg atcgccctcg caccgggcca tctggagagt ctgtttatac ttctctccgg 360  
 ctt 363

<210> 21  
 <211> 839  
 <212> DNA  
 <213> Pinus radiata

<220>  
 <221> misc\_feature  
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 <223> n = A,T,C or G

<400> 21  
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 gttatttttc tcgactatgg ctgacattac tagggctttc gtgctttcat ctgtgttttc 180  
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 cgctgtttgt aataggctct tgtctgtaaa ggtttcagca ggtgtttgctg ttttattgctg 300  
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 ccttggtata gtttccctcc tttgatctca caggaaccct ttcttctttg agcattttct 420  
 tgtggcggtc tgtagtaata ttttaatttt gggcccggtt tctgagggtta ggtgattatt 480  
 cncagtgatg tgctttccct ataaggctct ctatgtgtaa gctgttaggg tttgtgcgtt 540  
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 ttttctaatt cgtggattgc tggtgccata ttttatttct attgcaactg tatttttaggg 660  
 tgtctctttc tttttgattt cttgttaata tttgtgttca ggttgtaact atgggttgct 720  
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<210> 22  
 <211> 881  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 22  
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aaaacaaacg	cctcttgatt	tcctcaaacc	ccaaaccgaa	tccctcgtca	aggggcaagg	180
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tgtcgagcaa	acagaggggt	ccgagcgact	ataaaatccc	gacgccatcg	acaccacagt	300
ccatcgaaaa	ccttgttcaa	ttcccaagtg	aaagtgaagta	actgtgaacg	aagagttgaa	360
ctttgcatct	cggcgtgtgg	attcaagagg	aagcagcaaa	gtggaaatgg	acaactccaa	420
gatgggcttc	aatgcagggc	aggccaaggg	ccagactcag	gagaagagca	accagatgat	480
ggataaggca	tccaacactg	ctcaatctgc	aagggattcc	atgcaagaga	ctggtcagca	540
gatgaaggcc	aaagcccagg	gtgctgctga	tgcagtgaag	aatgccaccg	ggatgaacaa	600
atgaagagct	caagacatga	atgaataaat	aattaagctc	tggttatcat	ttgcttttcc	660
ggtcgtttgt	tgtcctgttt	ttccttgctca	agagcttatt	atgagggtcc	ttttgctctt	720
tccttagttc	tttttgtttc	ttggttgttc	catgaagaga	gcaactctct	gtgtttgaga	780
gtactcatct	cgcttcataa	ggctctcagta	tgtagtgtgc	tttcgagaat	gttatgttct	840
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<210> 23

<211> 350

<212> DNA

<213> Eucalyptus grandis

<400> 23

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accataatat	attcaacgtg	atgcttaaac	tttaatcgag	tatgcaatgt	agtccataat	180
atattcaata	tgatccttca	atccaattga	agtgtgcaat	gtggtcgcta	gattttttta	240
tgtattcaac	ttagtcttta	agctaccaac	cttccaataa	tttatgtttt	agaaataata	300
tcgaacatct	tttatattat	tcaaggaata	aaacgaacat	gcatcaaaag		350

<210> 24

<211> 49

<212> DNA

<213> Eucalyptus grandis

<400> 24

actatagggc	acgcgtggctc	gacggcccgg	gctgggtactt	tttttttct		49
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<210> 25

<211> 909

<212> DNA

<213> Eucalyptus grandis

<400> 25

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tatgatgctg	atgtgatagg	cagatgaatg	gcagttgagc	taagttaaaag	ccctcataca	180
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ttcgtgtatt	cccacatatt	cctctctcgt	tagaacgttc	agaaatgggt	ggccctttga	300
ctcttgatgc	agaggttgag	gttaagtctc	ctgcagacaa	gttctgggtg	agcgtgagag	360
actccaccaa	actgttccca	aagatcttcc	cggaccagta	caagaatatt	gaagtccttg	420
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ttgttaaagt	atcaaaggag	aagattgatg	gtgtggacga	agcagacaag	gtcgtgacct	540
acagcgttat	agacggtgat	ctcctgaagt	actacaagaa	tttcaatggc	agcatcaagg	600
taattccctaa	aggagacgga	agcttggtga	aatggctcgtg	tgggtttgag	aaggcaagcg	660
atgaaattcc	tgatccccac	gtaatcaagg	acttcgcaat	ccagaatttc	aaagagcttg	720
atgagttcat	cctcaaggca	tagatgccgc	caatcgtcta	tccggatttg	cactaaatat	780
caataaaaata	atgcggtgct	ggactccgca	cttctatatg	catctagtat	gagagtcccc	840
tgctgtctct	gtttgtattc	acttgaaggg	ttttctatta	agctctcttt	actgcctccg	900
aaaaaaaaa						909

<210> 26  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 26  
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 tgtaccgtga gcacggaaac gtgcgcgacg tattgggatt ggaccgga ctcaaggtcc 180  
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 gttacgatct cgccggcggt gtggtaaagg tgggcccgcga agtgaaggag ctcaagatcg 360  
 gggacgaggt atatggattt atgtttcacg ccaagaaaga cgggacgctg gctgagtacg 420  
 cagccgtgga 430

<210> 27  
 <211> 1253  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 27  
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 accgtgagca cggagacgtc gccaacgtat tgggattgga cccggaactc aaggtccctg 180  
 aattgcaaga aggccaaagt ctggttaaag ttcttgccgc ggcgctcaat ccaatcgaca 240  
 ccgcgagagt gaaggggggt atcaagctcc cgggcttttc tctaccggcc gtgccagggt 300  
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 ctaaggaagt ttttggtgca tcaagagtag cagctacatc cagcactggg aagctagagt 660  
 tggtgaagag cttgggtgct gatctggcca ttgactacac caaagtcaac tttgaagacc 720  
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 ctgtgaagcc aggagggagc atcgtgacga tcgtaaaaca aaacaagaca ttacccccgc 840  
 ctgctttctt ttttgagta acttcgaacc gttcgacctt ggagaagttg aagcccttct 900  
 tggagagcgg gaaggtgaag ccggtgatcg accccaagag cccgttccca ttttcgcaag 960  
 ccattgaggc cttctcgtat cttcaaaccg gccgggcaac tggaaaactc gtgattcacc 1020  
 ccgtcccatg atacacaaac gagaaagaaa taaagcgtcc acatggatct gccttaatca 1080  
 cgagtcctta attagtagtc gatggtgctt gctgtttgtc tccgtacatt cagcttctct 1140  
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 ttactttttc tataaacaat attacaaact caaaaaaaaaa aaaaaaaaaa aaa 1253

<210> 28  
 <211> 99  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 28  
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<210> 29  
 <211> 927  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 29  
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ctgtaattgc tcatcttctt taccaaattc tctaatttgg ccggcgaagg gctgacaagg 180  
gattggtcac gtcaccctca ccaaagggtg ccgaagggtc ggtgacctca gctgacggcc 240  
acctacacca aatctagctc actagcagcc taagcccttc atcaactcta gtgaaagggt 300  
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caaaggatct tggtttctac atttgcacta caccctaaaac ccaatttcta agttaaatca 480  
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<210> 30

<211> 411

<212> DNA

<213> *Eucalyptus grandis*

<400> 30  
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ccaccagcct ctttcacaac cgacatggga caacctcaaa tagaattttt aacaacaccc 300  
ttgcacgctc tttctatcca ctttattatg ccatcacatg agcgttttcc acgcgtaaat 360  
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<210> 31

<211> 178

<212> DNA

<213> *Eucalyptus grandis*

<400> 31  
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cgatttcttt cactgagcct cttgcttttc ctccggaatc tcacggcacc ggaatgccgg 120  
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<210> 32

<211> 178

<212> DNA

<213> *Eucalyptus grandis*

<400> 32  
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<210> 33

<211> 178

<212> DNA

<213> *Eucalyptus grandis*

<400> 33  
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tcactgagcc tcttgctttt cctccggaat ctcacggcac cggaatgccg gaggcaac 178

<210> 34

<211> 1274

<212> DNA

<213> Eucalyptus grandis

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accataatat attcaacgtg atgcttaaac tttaatcgag tatgcaatgt agtccataat 180  
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<210> 35

<211> 795

<212> DNA

<213> Eucalyptus grandis

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aagaatgccg gggagggatc cttcttcgat gctgtggctg ctcagctcac tcccaagact 300  
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<210> 36

<211> 1200  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 36

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cgaaaatgca	acgggcatca	gggtggcgat	gaaggagacg	atggagatat	tgttgctttc	480
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aagctctcct	tcaccgggtcc	gtcgttttct	ctcttatctt	cttcttctcc	ctcctcttct	600
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gtgcgccacc	tccttctccc	ctgcccattc	ctcgtctcaag	agagccgccg	gcctacggcc	780
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agagatgggc	aaggactatg	acgaggccat	tgaggctctc	aagaaactcc	tcagtgagaa	960
gggggacctg	aaagccacag	cagccgcaaa	agtggagcaa	ataactgcgg	agttgcaaac	1020
tgcttcccca	gacatcaagc	catccagctc	cgttgacaga	atcaaaaactg	gcttcacctt	1080
cttcaagaag	gagaaatacg	acaagaaccc	tgctttatat	ggtgaactgg	caaagcagag	1140
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<210> 37  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 37

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gttctattta	tggggcgaaa	caggggaggg	gaaaccgaat	ttaccaagat	gcccttcttg	180
gtgggatttg	acatggagct	gcacgaccgt	cgtcccatca	cgaagagtct	tgctcttcgg	240
tacacatgca	atcgtcggcg	aaccgacctt	atccgaccgg	ttccaagctt	gtcctggtaa	300
aaggtttcga	accttgga	aggcttaaga	gatgtatcgg	tgccttaacc	attattccat	360
gttcacataa	tatttgcccc	ggttttcagg	tcaatttttg	agtagcccg	ttcggttcta	420
gtcccgtccc	cgattcaaaa	attcattggg	aacaaatttt	gacactgtct	ggtatttttg	480
gtctaagacc	ctaccaattt	ttagaactgt	acacccttgc	tttatcccaa	aataaaaattg	540
tcaattagtc	aacttttcac	acttgatgat	cgattaagta	gatggatgac	atggtctttt	600
accagcccgg	gccgtcgacc	acgcgtgccc	tatagtgagt	cgtattac		648

<210> 38  
 <211> 288  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 38

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agaagtccgt	cgacgacaat	ggccgagaag	agcaaggctc	tgatcatcgg	agagaagagc	120
aagggtcctga	tcatcgga	gaagagcaag	gtcctgatca	tcggagagaa	gagcagggtc	180
cttatcatcg	gagaatcgaa	ttcccgcggc	cgccatggcg	gccgggagca	tgcgacgtcg	240
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<210> 39

<211> 382  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 39  
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 tttaagggtga atccatattt cgcagatggc catgttactg ctacactctc ttcacagcat 180  
 acatgaagga ggtcacatag caagcataca taggacctca tatacaaata tgacagcaga 240  
 ccagcccggg ccgtcgacca cgcgtgccct atagtagtag tggggaagga gtgagaggag 300  
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 atgccgatgg tggccactcc ag 382

<210> 40  
 <211> 986  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 40  
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 gtgctagatg gtatagagtc cctagttatt atttattttt ttggggccga gaagatcctg 180  
 atggatctat gctgtttgat actttcagat ttgttttgtc tacagctcaa ataaattagt 240  
 gcttggggtt tgatatatta tctaactctga tacaagtctt tgccttgcc aatttttgca 300  
 gagtttcctg caaaacagtg cactaaagct tccagaggac ctcattgcat gcccaagggc 360  
 accacctatg atggaacgga gaatcaaacc acagactgaa caggcggtga aatgccccag 420  
 atgtgattct acaaacacaa aattctgtta ctataacaac tacaatcttt cacaacctcg 480  
 ccattttctgc aagacctgca ggcgatactg gaccaaagga ggtgccttac gtaacgttcc 540  
 tgttggtggg ggttgagcaa agaataaacg agccaagcga gcagtagacc atcctgtctc 600  
 tgctcagaat gaagcatcca cctctgcagc cccaggcaac gaagtacctg accggtctcc 660  
 ctttgagcca ccatcttcaa aatccattta ctatggggga gaaaacatga acttaaccgg 720  
 tctccccctt agcagaattc agcaggaccg agctgcattg gccactgca actcttcttc 780  
 ctttctagga atgtcatgtg gcacccaatc ggctctctg gaaccacatc tttcggtttt 840  
 aaatacatct aattcattca agtctaaca tctgtgtctg gatcttccta gcttaagcac 900  
 agaccagaat tcaactgttg agaccagcca gccacaactg tcaagagcaa tggcatctgc 960  
 ctttttttct atgccaatgg ctctctg 986

<210> 41  
 <211> 313  
 <212> DNA  
 <213> Pinus radiata

<400> 41  
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 tagaaaatgg acggcagttt atcctttcat ggctggacac acagaatttg tggagggact 180  
 ctccattctg gtttatccgc cgtttagttct ctctgtactc cacccttagt tctctttgta 240  
 ctcgagacct ttaatgatta gccctgctta tgctgtcatt actgaactca cttccagagc 300  
 cccaaaaatc tct 313

<210> 42  
 <211> 713  
 <212> DNA  
 <213> Pinus radiata

<400> 42  
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gaataacatc	ggggccttgt	tctagacaga	gatttttcac	aaataacagg	ttcgaaggta	180
tgtgtagaca	tctgggtagt	tgtagaataa	agacggagcc	cattaggtga	tccaatcgaa	240
gagctcagat	gggaaaacag	ataaaaatta	tcgggtggac	cttccttcac	atgttaatta	300
tatatcaagt	gtcgccaatc	cttatgtgaa	acatttagta	aagcttcgcc	agagcacttc	360
ttataggcat	tctgtgggct	ctgttggtgt	ggttggaagt	actcctttaa	gggaggtatc	420
tgaatatttg	caacagaagt	cagttaaaca	agtgggtgac	tgtctgtttg	tacaagatgt	480
tactggcata	cctgtgggct	tgatagagac	ttccaggcgc	attgtgcatg	taaatcattt	540
ggatgatgcag	aagctagccg	gagtagagtc	tatagagccc	actgaagcaa	ttggtgtaat	600
caagcttcct	agcagcttct	acaacttgga	atctcttgaa	attcactcta	gttcccagat	660
atggtgctcg	tcgccacatc	gtctgcttgt	acttgatggc	attcaggatc	ctg	713

<210> 43

<211> 28

<212> DNA

<213> Pinus radiata

<400> 43

ccacctcaca	tcaataaatt	ttatacga	28
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<210> 44

<211> 35

<212> DNA

<213> Pinus radiata

<400> 44

gctgtttcat	tggggtcata	gctacgtggg	gctga	35
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<210> 45

<211> 1729

<212> DNA

<213> Pinus radiata

<400> 45

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cttactaaat	gcggacaaaa	aatccacgta	aagaacttct	gaattttaccg	tcatctgggc	120
tctgtaatta	cgaatttagg	gtttcctctg	tcaatatctg	gtagtgcaca	acaaggttta	180
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gagcttcgtg	tcttgcaacc	aattttccag	atatatgggc	gacgtcgagc	tttctctgga	300
cctatagtta	caactgaagg	ctttgaggac	aatgtccttt	tgcggaatt	ccttgaggag	360
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gggggcaatg	tagttgtatc	tgcccaaaac	aatgggttgg	ctggaataat	tgtcactggc	480
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cagcaagagt	tatcactgtg	agataataaa	attcataagt	ttcagattgt	gactttcatg	720
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tcggaccatc	ataagagata	gattatggaa	ctcagggact	tgctattttt	aatccaaaat	960
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tagccaatct	aatcagacct	tataagaaat	acactaggca	tctggggatc	aaaatccagt	1380



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tgaataatag	atgtacagca	aaattacagt	agttgagaac	aaagatggaa	ggataatccc	1560
aacgatagct	agcttgga	gtaggatgat	tacatcaaaa	tcatagcagt	tgagaacata	1620
gttggaagga	gaatccttat	gatggctacg	ttggataata	ggcgtgatta	tcgtaggtag	1680
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<210> 46

<211> 1038

<212> DNA

<213> Pinus radiata

<400> 46

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tcattcatta	tataagatca	gattcgtatg	atatacaggc	aaccatagaa	acaaccagca	180
aagttactag	caggaaatcc	aactaggtat	catgaagact	accaacgcag	gctcgataat	240
gttggtgctc	attatTTTTTg	ggtgctgttt	cattgggggtc	atagctacat	cttttgattt	300
ctattacttc	gttcaacagt	ggcctgggtc	atactgcgat	actcgtagag	gatgctgtta	360
ccctcgacg	ggaaggcctg	cttccgaatt	ttccattcat	ggcctctggc	ccaactacaa	420
gaccggtaaa	tggccacagt	tctgtgggtc	ctccgaagaa	ttcgactact	caaagatctc	480
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gcattcatac	tttgagaagg	ctctctcctt	gagacaaaat	atagacattc	ttggggctct	660
taaaactgca	ggtattaaac	ccgatggaag	ccaatacagt	ttgagcgata	tcaaggaagc	720
cattaaacaa	aacactgggc	agctcccagg	aatcgattgc	aacacgagcg	cagagggaga	780
gcacaaacta	tatcaggtgt	atgtgtgtgt	tgataaatcc	gatgcttcca	ctgttattga	840
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ggatcaggag	gaccgagatg	gttacacaga	aggaatgtac	gagctgtaga	tctggacaaa	960
cagcatttct	tctctccgca	tttgattttt	atcaatgaaa	tttccgattc	caacattttg	1020
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<210> 47

<211> 91

<212> DNA

<213> Pinus radiata

<400> 47

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tcctccgaag	aattcgatat	caagcttatt	g			91

<210> 48

<211> 91

<212> DNA

<213> Pinus radiata

<400> 48

gcttttcatc	cacactgggtg	cttcattcat	tatataagat	cagattcgtg	tgatatacag	60
gcaacatag	aaacaaccgg	caaagttact	a			91

<210> 49

<211> 809

<212> DNA

<213> Pinus radiata

<400> 49

tgatatatat	aacttctagc	agaatgacac	gcgacttgta	tatcttttca	ttttttaacc	60
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catgaaaacc	gattagggta	ttgcaaatta	gggcattgcc	attcaaataa	ttctcagatg	120
aaagattctc	tctaacaatt	acaaatgatt	atTTTTTtcc	atgagtgttg	catgttcgaa	180
cggctctgcc	agtctgtgag	agagcataga	gaaccctccc	tgcccaattt	gtagagcat	240
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ctcgaatgga	tgacttcaac	gacaatctca	tgatagtgtt	ctgatcagca	ccagttcacc	360
tatatatttt	atctaggggt	tagtttgcat	gtatcaatcc	tctgggtgcac	taggtaattc	420
tttcccagta	tcatatatcc	ttaataactgt	tttgtctttt	aatccatggc	taccatcaga	480
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ggccctcctt	ttccaggggt	cgaccgcggc	ctcgcaatgc	agctgcctgc	caaatgccat	780
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<210> 50

<211> 428

<212> DNA

<213> *Eucalyptus grandis*

<400> 50

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aggactaaag	ttttccaccc	aaatataaat	aacaatggaa	gtatctgcct	tgacatcttg	120
aaggaacagt	ggagtcttgc	tttgacaatc	tccaaggttt	tgctctcaat	ttgctctttg	180
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gatagggggc	aatatgagtc	cactgcacgg	agttggactc	agaaatatgc	aatggggtta	300
cttttaaaac	tatatatcag	tgatgggaact	ttatccctaa	gttggaatct	cttcgaatca	360
atgacttggt	tgcttgtaag	aaatgtttcc	ttaagataag	tggttttctt	caaaacttga	420
ttgaagtg						428

<210> 51

<211> 525

<212> DNA

<213> *Pinus radiata*

<400> 51

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tgcacccaga	tcacccgcta	aattgggtgc	acttttggca	atactgctca	tagttgcggc	120
agcgcaggct	caagattgct	caaatgccat	ggacaaattg	gctccatgca	cttcagcagt	180
gggactgtct	agcaatggag	tgaagccctc	atctgagtgc	tgtgatgccc	tcaaaggaac	240
cagtactggc	tgctcttgca	agtctgtgag	agcagtgata	tcacttctctg	ctaagtgcaa	300
tctcccagcc	ataacctgct	ctggatctcg	ctgaaggctc	tctgttatgg	cgattctcag	360
atcgtggatc	tctttaagat	tttcagcaag	caagtgatag	aataaattct	cagattttga	420
gatattcata	tagcgatttt	cagtatcaga	ttgtctatag	tactcatata	tttaagtgat	480
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<210> 52

<211> 1126

<212> DNA

<213> *Pinus radiata*

<400> 52

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aagacatata	taaacacctg	cacctaaaag	ttataatgat	aacatgcata	caaccctaca	180
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ccagaagtta	taataataac	atacatagaa	cccttacaat	aaaaaaagtt	atctccaatg	300
attattaatc	tactgcaggc	cagccatact	cagcttgaac	gtgaaaattc	gcattgtaag	360

catggcgcca	cattaaaata	acctcggcaa	tattttcatg	tccaagtggc	cggccagcca	420
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aaatgtggcc	aacccaagca	ccatatccat	gttcattaat	cccctctttg	ccttcaacta	540
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cagtatcaga	ttgtctacag	taccaatata	tttaagtgat	tgaatggaat	tctcggattc	1020
tgagatagaa	atataggcac	agaatgtggc	cggaggaatg	ttcgaattcg	agaatgataa	1080
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<210> 53

<211> 454

<212> DNA

<213> Pinus radiata

<400> 53

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caaatgccat	ggacaaaattg	gctccatgca	cttcagcagt	gggactgtct	agcaatggag	180
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agtctgtgag	agcagtgata	tcacttcctg	ctaagtgcaa	tctcccagcc	ataacctgct	300
ctggatctcg	ctgaaggctc	tctgttatgg	cgattctcag	atcgtggata	tctttaagat	360
tttcagcaag	tgatagaata	aattctcaga	ttttgagata	tctatatagc	gatttttcagt	420
atcagattgt	ctatagtact	catatatatta	agtg			454

<210> 54

<211> 335

<212> DNA

<213> Pinus radiata

<400> 54

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catttatattc	taatgcagtt	gtttgttaat	tgaagtgcaa	atagttccaa	aatgtttaca	180
tgaatcaata	gtgaacaaat	ccctctgttt	tatatcatat	tgatggatta	ttcgattttt	240
tggtgacgtg	gcgcgaaact	gcttttcgaa	ctcatggaaa	tagtaattgt	tataatccat	300
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<210> 55

<211> 336

<212> DNA

<213> Pinus radiata

<400> 55

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acttccaaat	aactacaggg	caataatcct	tgcagactag	ggcttatcta	taagctcatg	300
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<210> 56

<211> 532

<212> DNA

<213> *Pinus radiata*

<400> 56

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ccatttgaag	ttctttttct	gagagaagaa	tttagacatg	gctgatcgca	tgttgactcg	180
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tgctgagttt	gaggccatct	ctgaggagag	cagagcaaag	cttcttgatg	gggcctttgg	360
tgaagtcttc	aaatccactc	aggaagcgat	tgtgtcgcct	ccatgggttg	ctcttgctgt	420
tcgtccaagg	ccgggcgtgt	gggagcacat	ccgtgtgaac	gtccatgcgc	ttgttcttga	480
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<210> 57

<211> 3103

<212> DNA

<213> *Eucalyptus grandis*

<400> 57

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atcattttat	gaaatcgata	cactaacctt	tgtttctcct	aaacccaaag	gcattaatcc	180
ctgtcctcct	cactcgatct	cgaaggccag	aagggggagg	ccgagcctct	tgcttttttt	240
cgtgtataaa	agggcctccc	ccattcctca	tttttcacca	tcctccgttc	gttcgttccc	300
ttccctttcc	attgttgctg	ttaagccctc	caattttctt	ttggcgctcc	gtttttgggg	360
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caaggggtga	agccaagggc	aaaggcatct	tgcagcgcca	ccagattttt	gctgagtttg	600
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cgggcgtgtg	ggagcacatc	cgtgtgaacg	tccatgcgct	tgttcttgag	caattggagg	780
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aatttgagga	aaagtaccac	ttctcttgcc	agttcactgc	tgatctcatc	gccatgaacc	1860
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<210> 58

<211> 326

<212> DNA

<213> Eucalyptus grandis

<400> 58

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ggatctgatt	ggccgcgacg	tccgcctctg	acgtggcacc	accgacgatt	tttttttaat	180
atcttggtca	agtcctaatt	taactatggg	gtccagatta	gaagcttatc	cactatggat	240
taaatttaaat	caaatgggaa	ttaaattaaa	ttaaaatcat	cgtgcggagg	tgacagagat	300
gcacgagatc	cgacggcgca	gagcag				326

<210> 59

<211> 311

<212> DNA

<213> Eucalyptus grandis

<400> 59

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ttccaattta	gccccctctg	taattgctca	tcttctttac	caaattctct	aatttgccg	120
gcgaagggct	gacaagggat	tggatcatgtc	accctcacca	aagggtgccg	aagggtccgg	180
gacctcagct	gacggccacc	tacaccaa	ctagctcact	agcagcctaa	gcccttcac	240
aactctagtg	aaagggtttg	agtatttttt	aataaaaaat	atttaaaaaa	tatatagcga	300
gagtcatta	c					311

<210> 60

<211> 2096

<212> DNA

<213> Eucalyptus grandis

<400> 60

gattactata	gggcacgcgt	ggtcgacggc	cgggctggg	ctgagccatt	taattcgaga	60
gcacatcgcc	caaaattatt	cttcttgctg	ccataactgt	cgaattttct	cttttaggta	120
agtaaccaat	gatgcatcat	gttgacaaaa	aggctgatta	gtatgatctt	ggagttgttg	180
gtgcaaattt	gcaagctgac	gatggccctt	cagggaatt	aaggcgccaa	cccagattgc	240
aaagagcaca	aagagcacga	tccaaccttt	ccttaacaag	atcatcacca	gatcggccag	300
taagggtaat	attaatttaa	caaatagctc	ttgtaccggg	aactccgtat	ttctctcact	360
tccataaacc	cctgattaat	ttgggtggaa	agcgacagcc	aaccacaaa	aggctcagatg	420
tcatcccacg	agagagagag	agagagagag	agagagagag	agagttttct	ctctatattc	480
tggttcaccg	gttgagtgca	atggcatgcg	tgacgaatgt	acatattggg	gtaggggtcca	540

atattttgcg	ggaggggttg	tgaaccgcaa	agttcctata	tatcgaacct	ccaccaccat	600
acctcacttc	aatccccacc	atztatccgt	tttatttcct	ctgctttcct	ttgctcgagt	660
ctcgcggaag	agagagaaga	gaggagagga	gagaatgggt	tcgaccggat	ccgagaccca	720
gatgaccccg	acccaagtct	cggacgagga	ggcgaacctc	ttcgccatgc	agctggcgag	780
cgctccgtg	ctccccatgg	tcctcaaggc	cgccatcgag	ctcgacctcc	tcgagatcat	840
ggccaaggcc	gggcccggcg	cgttcctctc	cccgggggaa	gtcgcggccc	agctcccagc	900
ccagaacccc	gaggcacccg	tcattgctcga	ccggatcttc	cggctgctgg	ccagctactc	960
cgtgctcacg	tgcacctctc	gcgacctccc	cgatggcaag	gtcgcgaggc	tctacggctt	1020
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cttgatgaac	caggacaaaa	tcctcatgga	aagctgggat	tacctgaaag	atgcggctct	1140
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cgaccccgga	ttcaacaaga	tctttaaccg	gggaatgtct	gatcactcca	ccattactat	1260
gaagaagata	ctggaaacat	acaagggtct	cgagggcctc	gagaccgtgg	tcgatgtcgg	1320
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catgactgga	gtgacgacca	ttgcgcgaag	ttcctcaaga	actgctacga	tgcgcttccc	1560
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cctctgtggt	gatgttcatt	gttcttggat	ttgaaaggct	gtgaaggagc	ccttttctca	1860
cagttggctt	cggcatacca	agttcttctc	ataaaaggaa	acaataagaa	gcgactgtat	1920
gatggcgcaa	gtggaagtta	caagatttgt	tgttttatgt	ctataaagtt	ttgagtcttc	1980
tgcatactga	tttcacagaa	tgtgtaacga	aacggcgtat	atggatgtgc	ctgaatgatg	2040
gaaatttgtga	tattctgtct	tctttttcag	taaatcactt	cgaacaaaaa	aaaaaa	2096

<210> 61

<211> 522

<212> DNA

<213> Eucalyptus grandis

<400> 61

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ccctctcgcg	gccagctgcg	agatctgccg	agtttaagcc	tcgtacatca	aaatgggtaa	120
ggagaagatt	cacatcagca	ttgtggatcat	tggccatgtc	gattctggga	agtcaaccac	180
aactggccac	ttgatataca	agctcggagg	aatcgacaag	cgtgtgattg	agagattcga	240
gaaggaagct	gctgagatga	acaagagatc	gttcaagtat	gcttgggtgc	ttgacaagct	300
caaggccgag	cgcgagcgcg	gtattaccat	tgatattgcc	ttgtggaagt	tcgagaccac	360
caagtactac	tgcactgtca	ttgatgtctc	tggacatcgt	gactttatta	agaatatgat	420
tactggaacc	tcccaggccg	actgtgctgt	ccttatcatt	gattccacca	ctggtggttt	480
cgaagctggt	atttccaagg	atggccagac	ccgtgaacat	gc		522

<210> 62

<211> 420

<212> DNA

<213> Eucalyptus grandis

<400> 62

tttgatacgc	taacaaacaa	aacatgtgaa	aagcttaatt	atggcaatta	tcataaatag	60
aaaaaaatta	gaaaaaaaga	gaggaaatgg	gccattatct	aaattgcaat	cgaaagattg	120
agggcaattc	tgtttctcta	gtgtaaataa	gggtgtatct	aataattgag	ggatggaaat	180
agcatggtca	ctcggttaatt	atcaaggaaa	gcaagaataa	aaatggaaaa	aaaaaaaaaa	240
aaagcttgaa	gaggccaatg	tcgaaattat	gagcgcgaga	tgaggacact	cctgggaaac	300
gaaaaatggc	attcgcgggg	ggtgctatat	aaagcctcgt	gtaagggtgc	gttcctcact	360
ctcaaaccct	aatcctgccc	ttcccttctg	ctgctgctgc	tcgtcacctc	tctcctcctt	420

<210> 63  
 <211> 65  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 63  
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 Thr Gln Glu Lys Ser Asn Gln Met Met Asp Lys Ala Ser Asn Thr Ala  
 20 25 30  
 Gln Ser Ala Arg Asp Ser Met Gln Glu Thr Gly Gln Gln Met Lys Ala  
 35 40 45  
 Lys Ala Gln Gly Ala Ala Asp Ala Val Lys Asn Ala Thr Gly Met Asn  
 50 55 60  
 Lys  
 65

<210> 64  
 <211> 152  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 64  
 Met Gly Gly Pro Leu Thr Leu Asp Ala Glu Val Glu Val Lys Ser Pro  
 1 5 10 15  
 Ala Asp Lys Phe Trp Val Ser Val Arg Asp Ser Thr Lys Leu Phe Pro  
 20 25 30  
 Lys Ile Phe Pro Asp Gln Tyr Lys Asn Ile Glu Val Leu Glu Gly Asp  
 35 40 45  
 Gly Lys Ala Pro Gly Ser Val Arg Leu Phe Thr Tyr Gly Glu Gly Ser  
 50 55 60  
 Pro Leu Val Lys Val Ser Lys Glu Lys Ile Asp Gly Val Asp Glu Ala  
 65 70 75 80  
 Asp Lys Val Val Thr Tyr Ser Val Ile Asp Gly Asp Leu Leu Lys Tyr  
 85 90 95  
 Tyr Lys Asn Phe Asn Gly Ser Ile Lys Val Ile Pro Lys Gly Asp Gly  
 100 105 110  
 Ser Leu Val Lys Trp Ser Cys Gly Phe Glu Lys Ala Ser Asp Glu Ile  
 115 120 125  
 Pro Asp Pro His Val Ile Lys Asp Phe Ala Ile Gln Asn Phe Lys Glu  
 130 135 140  
 Leu Asp Glu Phe Ile Leu Lys Ala  
 145 150

<210> 65  
 <211> 117  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 65  
 Met Ala Ala Asn Phe Val Ile Pro Thr Lys Met Lys Ala Trp Val Tyr  
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 Arg Glu His Gly Asn Val Ala Asp Val Leu Gly Leu Asp Pro Glu Leu  
 20 25 30  
 Lys Val Pro Glu Leu Gln Glu Gly Gln Val Leu Val Lys Val Leu Ala  
 35 40 45

Ala	Ala	Leu	Asn	Pro	Val	Asp	Ala	Ala	Arg	Met	Lys	Gly	Val	Ile	Lys
50						55					60				
Leu	Pro	Gly	Phe	Ser	Leu	Pro	Ala	Val	Pro	Gly	Tyr	Asp	Leu	Ala	Gly
65					70					75					80
Val	Val	Val	Lys	Val	Gly	Arg	Glu	Val	Lys	Glu	Leu	Lys	Ile	Gly	Asp
				85					90					95	
Glu	Val	Tyr	Gly	Phe	Met	Phe	His	Ala	Lys	Lys	Asp	Gly	Thr	Leu	Ala
			100					105					110		
Glu	Tyr	Ala	Ala	Val											
			115												

<210> 66

<211> 318

<212> PRT

<213> Eucalyptus grandis

<400> 66

Met	Ala	Ala	Asn	Phe	Val	Ile	Pro	Thr	Lys	Met	Lys	Ala	Trp	Val	Tyr
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Arg	Glu	His	Gly	Asp	Val	Ala	Asn	Val	Leu	Gly	Leu	Asp	Pro	Glu	Leu
			20					25					30		
Lys	Val	Pro	Glu	Leu	Gln	Glu	Gly	Gln	Val	Leu	Val	Lys	Val	Leu	Ala
		35					40					45			
Ala	Ala	Leu	Asn	Pro	Ile	Asp	Thr	Ala	Arg	Val	Lys	Gly	Val	Ile	Lys
		50				55					60				
Leu	Pro	Gly	Phe	Ser	Leu	Pro	Ala	Val	Pro	Gly	Tyr	Asp	Leu	Ala	Gly
65					70					75					80
Val	Val	Val	Lys	Val	Gly	Arg	Glu	Val	Lys	Glu	Leu	Lys	Val	Gly	Asp
				85					90					95	
Glu	Val	Tyr	Gly	Phe	Met	Phe	His	Ala	Lys	Lys	Asp	Gly	Thr	Leu	Ala
			100					105					110		
Glu	Tyr	Ala	Ala	Val	Glu	Glu	Ser	Phe	Leu	Ala	Leu	Lys	Pro	Lys	Lys
		115					120					125			
Leu	Arg	Phe	Gly	Glu	Ala	Ala	Ser	Leu	Pro	Val	Val	Ile	Gln	Thr	Ala
		130				135					140				
Tyr	Gly	Gly	Leu	Glu	Arg	Ala	Gly	Leu	Ser	His	Gly	Lys	Ser	Leu	Leu
145					150					155					160
Val	Leu	Gly	Gly	Ala	Gly	Gly	Val	Gly	Thr	Leu	Ile	Ile	Gln	Leu	Ala
			165						170					175	
Lys	Glu	Val	Phe	Gly	Ala	Ser	Arg	Val	Ala	Ala	Thr	Ser	Ser	Thr	Gly
			180					185					190		
Lys	Leu	Glu	Leu	Leu	Lys	Ser	Leu	Gly	Ala	Asp	Leu	Ala	Ile	Asp	Tyr
		195					200					205			
Thr	Lys	Val	Asn	Phe	Glu	Asp	Leu	Pro	Glu	Lys	Phe	Asp	Val	Val	Tyr
		210				215					220				
Asp	Thr	Val	Gly	Glu	Ile	Glu	Arg	Ala	Ala	Lys	Ala	Val	Lys	Pro	Gly
225					230					235					240
Gly	Ser	Ile	Val	Thr	Ile	Val	Lys	Gln	Asn	Lys	Thr	Leu	Pro	Pro	Pro
				245					250					255	
Ala	Phe	Phe	Phe	Ala	Val	Thr	Ser	Asn	Arg	Ser	Thr	Leu	Glu	Lys	Leu
			260					265					270		
Lys	Pro	Phe	Leu	Glu	Ser	Gly	Lys	Val	Lys	Pro	Val	Ile	Asp	Pro	Lys
		275					280					285			
Ser	Pro	Phe	Pro	Phe	Ser	Gln	Ala	Ile	Glu	Ala	Phe	Ser	Tyr	Leu	Gln
		290				295					300				
Thr	Arg	Arg	Ala	Thr	Gly	Lys	Leu	Val	Ile	His	Pro	Val	Pro		
305					310					315					



<210> 67  
 <211> 156  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 67  
 Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu  
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 Val Glu Ser Ser Asp Thr Val Asp Asn Val Lys Ala Lys Ile Gln Asp  
 20 25 30  
 Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys  
 35 40 45  
 Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu  
 50 55 60  
 Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Met Gln Ile Phe  
 65 70 75 80  
 Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu Ser Ser  
 85 90 95  
 Asp Thr Val Asp Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile  
 100 105 110  
 Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys Gln Leu Glu Asp  
 115 120 125  
 Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu Ser Thr Leu His  
 130 135 140  
 Leu Val Leu Arg Leu Lys Gly Gly Met Gln Ile Phe  
 145 150 155

<210> 68  
 <211> 238  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 68  
 Met Ala Thr His Ala Ala Leu Ala Pro Ser Thr Leu Pro Ala Asn Ala  
 1 5 10 15  
 Lys Phe Ser Ser Lys Ser Ser Ser His Ser Phe Pro Thr Gln Cys Phe  
 20 25 30  
 Ser Lys Arg Leu Glu Val Ala Glu Phe Ser Gly Leu Arg Ala Gly Ser  
 35 40 45  
 Cys Val Thr Tyr Ala Lys Asn Ala Gly Glu Gly Ser Phe Phe Asp Ala  
 50 55 60  
 Val Ala Ala Gln Leu Thr Pro Lys Thr Ser Ala Pro Ala Pro Ala Lys  
 65 70 75 80  
 Gly Glu Thr Val Ala Lys Leu Lys Val Ala Ile Asn Gly Phe Gly Arg  
 85 90 95  
 Ile Gly Arg Asn Phe Leu Arg Cys Trp His Gly Arg Lys Asn Ser Pro  
 100 105 110  
 Leu Asp Val Ile Val Val Asn Asp Ser Gly Gly Val Lys Asn Ala Ser  
 115 120 125  
 His Leu Leu Lys Tyr Asp Ser Met Leu Gly Thr Phe Lys Ala Asp Val  
 130 135 140  
 Lys Ile Val Asp Asn Glu Thr Ile Ser Val Asp Gly Lys Pro Val Lys  
 145 150 155 160  
 Val Val Ser Asn Arg Asp Pro Leu Lys Leu Pro Trp Ala Glu Leu Gly  
 165 170 175  
 Ile Asp Ile Val Ile Glu Gly Thr Gly Val Phe Val Asp Gly Pro Gly

			180					185				190			
Ala	Gly	Lys	His	Ile	Gln	Ala	Gly	Ala	Lys	Lys	Val	Ile	Ile	Thr	Ala
		195					200					205			
Pro	Ala	Lys	Gly	Ala	Asp	Ile	Pro	Thr	Tyr	Val	Tyr	Gly	Val	Asn	Glu
	210					215					220				
Thr	Asp	Tyr	Ser	His	Glu	Val	Ala	Asn	Ile	Ile	Ser	Asn	Ala		
225					230					235					

<210> 69

<211> 168

<212> PRT

<213> Eucalyptus grandis

<400> 69

Met	Ser	Thr	Ser	Pro	Val	Ser	Ser	Trp	Cys	Ala	Thr	Ser	Phe	Ser	Pro
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Ala	His	Ser	Ser	Leu	Lys	Arg	Ala	Ala	Gly	Leu	Arg	Pro	Ser	Leu	Ser
			20					25					30		
Ala	Arg	Leu	Gly	Pro	Ser	Ser	Ser	Ser	Ser	Ser	Val	Ser	Pro	Pro	Thr
		35					40					45			
Leu	Ile	Arg	Asn	Glu	Pro	Val	Phe	Ala	Ala	Pro	Ala	Pro	Val	Ile	Asn
	50					55					60				
Pro	Thr	Trp	Thr	Glu	Glu	Met	Gly	Lys	Asp	Tyr	Asp	Glu	Ala	Ile	Glu
65					70					75					80
Ala	Leu	Lys	Lys	Leu	Ser	Glu	Lys	Gly	Asp	Leu	Lys	Ala	Thr	Ala	
				85				90						95	
Ala	Ala	Lys	Val	Glu	Gln	Ile	Thr	Ala	Glu	Leu	Gln	Thr	Ala	Ser	Pro
			100					105					110		
Asp	Ile	Lys	Pro	Ser	Ser	Ser	Val	Asp	Arg	Ile	Lys	Thr	Gly	Phe	Thr
		115					120					125			
Phe	Phe	Lys	Lys	Glu	Lys	Tyr	Asp	Lys	Asn	Pro	Ala	Leu	Tyr	Gly	Glu
	130					135					140				
Leu	Ala	Lys	Gln	Ser	Pro	Lys	Phe	Met	Val	Phe	Ala	Cys	Ser	Asp	Ser
145					150					155					160
Arg	Val	Cys	Pro	Ser	His	Val	Leu								
				165											

<210> 70

<211> 214

<212> PRT

<213> Eucalyptus grandis

<400> 70

Met	Pro	Cys	Pro	Arg	Ala	Pro	Pro	Met	Met	Glu	Arg	Arg	Ile	Lys	Pro
1				5					10					15	
Gln	Thr	Glu	Gln	Ala	Leu	Lys	Cys	Pro	Arg	Cys	Asp	Ser	Thr	Asn	Thr
			20					25					30		
Lys	Phe	Cys	Tyr	Tyr	Asn	Asn	Tyr	Asn	Leu	Ser	Gln	Pro	Arg	His	Phe
		35					40					45			
Cys	Lys	Thr	Cys	Arg	Arg	Tyr	Trp	Thr	Lys	Gly	Gly	Ala	Leu	Arg	Asn
		50				55					60				
Val	Pro	Val	Gly	Gly	Gly	Cys	Arg	Lys	Asn	Lys	Arg	Ala	Lys	Arg	Ala
65					70					75					80
Val	Asp	His	Pro	Val	Ser	Ala	Gln	Asn	Glu	Ala	Ser	Thr	Ser	Ala	Ala
				85					90					95	
Pro	Gly	Asn	Glu	Val	Pro	Asp	Arg	Ser	Pro	Phe	Glu	Pro	Pro	Ser	Ser
			100					105					110		

Lys Ser Ile Tyr Tyr Gly Gly Glu Asn Met Asn Leu Thr Gly Leu Pro  
           115                  120          125  
 Phe Ser Arg Ile Gln Gln Asp Arg Ala Ala Leu Ala His Cys Asn Ser  
       130                  135          140  
 Ser Ser Phe Leu Gly Met Ser Cys Gly Thr Gln Ser Ala Ser Leu Glu  
 145                  150          155          160  
 Pro His Leu Ser Ala Leu Asn Thr Phe Asn Ser Phe Lys Ser Asn Asn  
           165                  170          175  
 Pro Gly Leu Asp Phe Pro Ser Leu Ser Thr Asp Gln Asn Ser Leu Phe  
           180                  185          190  
 Glu Thr Ser Gln Pro Gln Leu Ser Arg Ala Met Ala Ser Ala Leu Phe  
           195                  200          205  
 Ser Met Pro Met Ala Pro  
       210

<210> 71

<211> 166

<212> PRT

<213> Pinus radiata

<400> 71

Met Ala Ala Leu Ala Thr Thr Glu Val Cys Asp Thr Tyr Pro Arg Leu  
 1                  5          10          15  
 Val Glu Asn Gly Glu Leu Arg Val Leu Gln Pro Ile Phe Gln Ile Tyr  
       20                  25          30  
 Gly Arg Arg Arg Ala Phe Ser Gly Pro Ile Val Thr Leu Lys Val Phe  
       35                  40          45  
 Glu Asp Asn Val Leu Leu Arg Glu Phe Leu Glu Glu Arg Gly Asn Gly  
       50                  55          60  
 Arg Val Leu Val Val Asp Gly Gly Gly Ser Leu Arg Cys Ala Ile Leu  
 65                  70          75          80  
 Gly Gly Asn Val Val Val Ser Ala Gln Asn Asn Gly Trp Ser Gly Ile  
           85                  90          95  
 Ile Val Thr Gly Cys Ile Arg Asp Val Asp Glu Ile Asn Arg Cys Asp  
       100                  105          110  
 Ile Gly Ile Arg Ala Leu Thr Ser Asn Pro Leu Lys Ala Asn Lys Lys  
       115                  120          125  
 Gly Val Gly Glu Lys His Ala Pro Ile Tyr Ile Ala Gly Thr Arg Ile  
       130                  135          140  
 Leu Pro Gly Glu Trp Cys Tyr Ala Asp Ser Asp Gly Ile Leu Val Ser  
 145                  150          155          160  
 Gln Gln Glu Leu Ser Leu  
           165

<210> 72

<211> 236

<212> PRT

<213> Pinus radiata

<400> 72

Met Leu Val Leu Ile Ile Phe Gly Cys Cys Phe Ile Gly Val Ile Ala  
 1                  5          10          15  
 Thr Ser Phe Asp Phe Tyr Tyr Phe Val Gln Gln Trp Pro Gly Ser Tyr  
       20                  25          30  
 Cys Asp Thr Arg Arg Gly Cys Cys Tyr Pro Arg Thr Gly Arg Pro Ala  
       35                  40          45  
 Ser Glu Phe Ser Ile His Gly Leu Trp Pro Asn Tyr Lys Thr Gly Lys

50		55		60											
Trp	Pro	Gln	Phe	Cys	Gly	Ser	Ser	Glu	Glu	Phe	Asp	Tyr	Ser	Lys	Ile
65					70					75					80
Ser	Asp	Leu	Glu	Glu	Glu	Leu	Asn	Arg	Tyr	Trp	Gly	Ser	Leu	Ser	Cys
			85						90					95	
Pro	Ser	Ser	Asp	Gly	Gln	Glu	Phe	Trp	Gly	His	Glu	Trp	Glu	Lys	His
			100					105					110		
Gly	Thr	Cys	Ser	Leu	Asn	Leu	Asp	Glu	His	Ser	Tyr	Phe	Glu	Lys	Ala
		115					120					125			
Leu	Ser	Leu	Arg	Gln	Asn	Ile	Asp	Ile	Leu	Gly	Ala	Leu	Lys	Thr	Ala
		130				135					140				
Gly	Ile	Lys	Pro	Asp	Gly	Ser	Gln	Tyr	Ser	Leu	Ser	Asp	Ile	Lys	Glu
145					150					155					160
Ala	Ile	Lys	Gln	Asn	Thr	Gly	Gln	Leu	Pro	Gly	Ile	Asp	Cys	Asn	Thr
			165					170						175	
Ser	Ala	Glu	Gly	Glu	His	Gln	Leu	Tyr	Gln	Val	Tyr	Val	Cys	Val	Asp
			180					185					190		
Lys	Ser	Asp	Ala	Ser	Thr	Val	Ile	Glu	Cys	Pro	Ile	Tyr	Pro	His	Ser
		195				200						205			
Asn	Cys	Pro	Ser	Met	Val	Val	Phe	Pro	Pro	Phe	Gly	Glu	Asp	Gln	Glu
	210				215						220				
Asp	Arg	Asp	Gly	Tyr	Thr	Glu	Gly	Met	Tyr	Glu	Leu				
225					230					235					

<210> 73

<211> 92

<212> PRT

<213> Pinus radiata

<400> 73

Met	Ala	Ala	Pro	Arg	Ser	Ser	Ala	Lys	Leu	Gly	Ala	Leu	Leu	Ala	Ile
1			5						10					15	
Leu	Leu	Ile	Val	Ala	Ala	Ala	Gln	Ala	Gln	Asp	Cys	Ser	Asn	Ala	Met
			20				25						30		
Asp	Lys	Leu	Ala	Pro	Cys	Thr	Ser	Ala	Val	Gly	Leu	Ser	Ser	Asn	Gly
		35				40						45			
Val	Lys	Pro	Ser	Ser	Glu	Cys	Cys	Asp	Ala	Leu	Lys	Gly	Thr	Ser	Thr
	50				55						60				
Gly	Cys	Val	Cys	Lys	Ser	Val	Arg	Ala	Val	Ile	Ser	Leu	Pro	Ala	Lys
65					70					75					80
Cys	Asn	Leu	Pro	Ala	Ile	Thr	Cys	Ser	Gly	Ser	Arg				
			85						90						

<210> 74

<211> 92

<212> PRT

<213> Pinus radiata

<400> 74

Met	Ala	Ala	Pro	Arg	Ser	Ser	Ala	Lys	Ser	Ala	Ala	Leu	Phe	Ala	Ile
1			5						10					15	
Leu	Leu	Ile	Val	Ala	Ala	Val	Gln	Ala	Glu	Asp	Cys	Ser	Asn	Ala	Met
			20				25						30		
Asp	Lys	Leu	Ala	Pro	Cys	Thr	Ser	Ala	Val	Gly	Leu	Ser	Ser	Asn	Gly
		35				40						45			
Val	Lys	Pro	Ser	Ser	Glu	Cys	Cys	Asp	Ala	Leu	Lys	Gly	Thr	Ser	Thr
	50				55						60				

Gly Cys Val Cys Lys Ser Val Arg Ala Val Ile Ser Leu Pro Ala Lys  
 65 70 75 80  
 Cys Asn Leu Pro Ala Leu Thr Cys Ser Gly Ser Arg  
 85 90

<210> 75  
 <211> 92  
 <212> PRT  
 <213> Pinus radiata

<400> 75  
 Met Ala Ala Pro Arg Ser Ser Ala Lys Leu Gly Ala Leu Leu Ala Ile  
 1 5 10 15  
 Leu Leu Ile Val Ala Ala Ala Gln Ala Gln Asp Cys Ser Asn Ala Met  
 20 25 30  
 Asp Lys Leu Ala Pro Cys Thr Ser Ala Val Gly Leu Ser Ser Asn Gly  
 35 40 45  
 Val Lys Pro Ser Ser Glu Cys Cys Asp Ala Leu Lys Gly Thr Ser Thr  
 50 55 60  
 Gly Cys Val Cys Lys Ser Val Arg Ala Val Ile Ser Leu Pro Ala Lys  
 65 70 75 80  
 Cys Asn Leu Pro Ala Ile Thr Cys Ser Gly Ser Arg  
 85 90

<210> 76  
 <211> 125  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 76  
 Met Ala Asp Arg Met Leu Thr Arg Ser His Ser Leu Arg Glu Arg Leu  
 1 5 10 15  
 Asp Glu Thr Leu Ser Ala His Arg Asn Asp Ile Val Ala Phe Leu Ser  
 20 25 30  
 Arg Val Glu Ala Lys Gly Lys Gly Ile Leu Gln Arg His Gln Ile Phe  
 35 40 45  
 Ala Glu Phe Glu Ala Ile Ser Glu Glu Ser Arg Ala Lys Leu Leu Asp  
 50 55 60  
 Gly Ala Phe Gly Glu Val Leu Lys Ser Thr Gln Glu Ala Ile Val Ser  
 65 70 75 80  
 Pro Pro Trp Val Ala Leu Ala Val Arg Pro Arg Pro Gly Val Trp Glu  
 85 90 95  
 His Ile Arg Val Asn Val His Ala Leu Val Leu Glu Gln Leu Glu Val  
 100 105 110  
 Ala Glu Tyr Leu His Phe Lys Glu Glu Leu Ala Asp Gly  
 115 120 125

<210> 77  
 <211> 805  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 77  
 Met Ala Asp Arg Met Leu Thr Arg Ser His Ser Leu Arg Glu Arg Leu  
 1 5 10 15  
 Asp Glu Thr Leu Ser Ala His Arg Asn Asp Ile Val Ala Phe Leu Ser  
 20 25 30

Arg	Val	Glu	Ala	Lys	Gly	Lys	Gly	Ile	Leu	Gln	Arg	His	Gln	Ile	Phe
		35					40					45			
Ala	Glu	Phe	Glu	Ala	Ile	Ser	Glu	Glu	Ser	Arg	Ala	Lys	Leu	Leu	Asp
	50					55					60				
Gly	Ala	Phe	Gly	Glu	Val	Leu	Lys	Ser	Thr	Gln	Glu	Ala	Ile	Val	Ser
65					70					75					80
Pro	Pro	Trp	Val	Ala	Leu	Ala	Val	Arg	Pro	Arg	Pro	Gly	Val	Trp	Glu
				85					90					95	
His	Ile	Arg	Val	Asn	Val	His	Ala	Leu	Val	Leu	Glu	Gln	Leu	Glu	Val
			100					105					110		
Ala	Glu	Tyr	Leu	His	Phe	Lys	Glu	Glu	Leu	Ala	Asp	Gly	Ser	Leu	Asn
		115					120					125			
Gly	Asn	Phe	Val	Leu	Glu	Leu	Asp	Phe	Glu	Pro	Phe	Thr	Ala	Ser	Phe
	130					135					140				
Pro	Arg	Pro	Thr	Leu	Ser	Lys	Ser	Ile	Gly	Asn	Gly	Val	Glu	Phe	Leu
145					150					155					160
Asn	Arg	His	Leu	Ser	Ala	Lys	Leu	Phe	His	Asp	Lys	Glu	Ser	Leu	His
				165					170					175	
Pro	Leu	Leu	Glu	Phe	Leu	Gln	Val	His	Cys	Tyr	Lys	Gly	Lys	Asn	Met
			180					185					190		
Met	Val	Asn	Ala	Arg	Ile	Gln	Asn	Val	Phe	Ser	Leu	Gln	His	Val	Leu
		195					200					205			
Arg	Lys	Ala	Glu	Glu	Tyr	Leu	Thr	Ser	Leu	Lys	Pro	Glu	Thr	Pro	Tyr
	210					215					220				
Ser	Gln	Phe	Glu	His	Lys	Phe	Gln	Glu	Ile	Gly	Leu	Glu	Arg	Gly	Trp
225					230					235					240
Gly	Asp	Thr	Ala	Glu	Arg	Val	Leu	Glu	Met	Ile	Gln	Leu	Leu	Leu	Asp
				245					250					255	
Leu	Leu	Glu	Ala	Pro	Asp	Pro	Cys	Thr	Leu	Glu	Lys	Phe	Leu	Asp	Arg
			260					265					270		
Val	Pro	Met	Val	Phe	Asn	Val	Val	Ile	Met	Ser	Pro	His	Gly	Tyr	Phe
		275					280					285			
Ala	Gln	Asp	Asp	Val	Leu	Gly	Tyr	Pro	Asp	Thr	Gly	Gly	Gln	Val	Val
	290					295					300				
Tyr	Ile	Leu	Asp	Gln	Val	Arg	Ala	Leu	Glu	Glu	Glu	Met	Leu	His	Arg
305					310					315					320
Ile	Lys	Gln	Gln	Gly	Leu	Asp	Ile	Thr	Pro	Arg	Ile	Leu	Ile	Ile	Thr
				325					330					335	
Arg	Leu	Leu	Pro	Asp	Ala	Val	Gly	Thr	Thr	Cys	Gly	Gln	Arg	Leu	Glu
			340					345				350			
Lys	Val	Phe	Gly	Thr	Glu	Tyr	Ser	His	Ile	Leu	Arg	Val	Pro	Phe	Arg
		355					360					365			
Asn	Glu	Lys	Gly	Val	Val	Arg	Lys	Trp	Ile	Ser	Arg	Phe	Glu	Val	Trp
	370					375					380				
Pro	Tyr	Leu	Glu	Arg	Tyr	Thr	Glu	Asp	Val	Ala	Ser	Glu	Leu	Ala	Gly
385					390					395					400
Glu	Leu	Gln	Gly	Lys	Pro	Asp	Leu	Ile	Ile	Gly	Asn	Tyr	Ser	Asp	Gly
				405					410					415	
Asn	Ile	Val	Ala	Ser	Leu	Leu	Ala	His	Lys	Leu	Gly	Val	Thr	Gln	Cys
			420					425					430		
Thr	Ile	Ala	His	Ala	Leu	Glu	Lys	Thr	Lys	Tyr	Pro	Glu	Ser	Asp	Ile
		435					440					445			
Tyr	Trp	Lys	Lys	Phe	Glu	Glu	Lys	Tyr	His	Phe	Ser	Cys	Gln	Phe	Thr
	450					455				460					
Ala	Asp	Leu	Ile	Ala	Met	Asn	His	Thr	Asp	Phe	Ile	Ile	Thr	Ser	Thr
465					470					475					480
Phe	Gln	Glu	Ile	Ala	Gly	Ser	Lys	Asp	Thr	Val	Gly	Gln	Tyr	Glu	Ser



65					70					75					80
Ile	Phe	Arg	Leu	Leu	Ala	Ser	Tyr	Ser	Val	Leu	Thr	Cys	Thr	Leu	Arg
				85					90					95	
Asp	Leu	Pro	Asp	Gly	Lys	Val	Glu	Arg	Leu	Tyr	Gly	Leu	Ala	Pro	Val
			100					105					110		
Cys	Lys	Phe	Leu	Val	Lys	Asn	Glu	Asp	Gly	Val	Ser	Ile	Ala	Ala	Leu
		115					120					125			
Asn	Leu	Met	Asn	Gln	Asp	Lys	Ile	Leu	Met	Glu	Ser	Trp	Tyr	Tyr	Leu
		130				135					140				
Lys	Asp	Ala	Val	Leu	Glu	Gly	Gly	Ile	Pro	Phe	Asn	Lys	Ala	Tyr	Gly
145					150					155				160	
Met	Thr	Ala	Phe	Glu	Tyr	His	Gly	Thr	Asp	Pro	Arg	Phe	Asn	Lys	Ile
				165					170					175	
Phe	Asn	Arg	Gly	Met	Ser	Asp	His	Ser	Thr	Ile	Thr	Met	Lys	Lys	Ile
			180					185					190		
Leu	Glu	Thr	Tyr	Lys	Gly	Phe	Glu	Gly	Leu	Glu	Thr	Val	Val	Asp	Val
		195					200					205			
Gly	Gly	Gly	Thr	Gly	Ala	Val	Leu	Ser	Met	Ile	Val	Ala	Lys	Tyr	Pro
	210					215					220				
Ser	Met	Lys	Gly	Ile	Asn	Phe	Asp	Arg	Pro	Asn	Gly	Leu	Lys	Thr	Pro
225					230					235				240	
His	Pro	Phe	Leu	Val	Ser	Ser	Thr	Ser	Glu	Ala	Thr	Cys	Ser	Ser	Ala
				245					250					255	
Phe	Gln	Arg	Glu	Met	Pro	Phe	Ser								
			260												

<210> 79

<211> 136

<212> PRT

<213> Eucalyptus grandis

<400> 79

Met	Gly	Lys	Glu	Lys	Ile	His	Ile	Ser	Ile	Val	Val	Ile	Gly	His	Val
1				5				10					15		
Asp	Ser	Gly	Lys	Ser	Thr	Thr	Thr	Gly	His	Leu	Ile	Tyr	Lys	Leu	Gly
			20					25					30		
Gly	Ile	Asp	Lys	Arg	Val	Ile	Glu	Arg	Phe	Glu	Lys	Glu	Ala	Ala	Glu
		35					40					45			
Met	Asn	Lys	Arg	Ser	Phe	Lys	Tyr	Ala	Trp	Val	Leu	Asp	Lys	Leu	Lys
	50					55					60				
Ala	Glu	Arg	Glu	Arg	Gly	Ile	Thr	Ile	Asp	Ile	Ala	Leu	Trp	Lys	Phe
65					70				75					80	
Glu	Thr	Thr	Lys	Tyr	Cys	Thr	Val	Ile	Asp	Ala	Pro	Gly	His	Arg	
				85				90					95		
Asp	Phe	Ile	Lys	Asn	Met	Ile	Thr	Gly	Thr	Ser	Gln	Ala	Asp	Cys	Ala
			100					105					110		
Val	Leu	Ile	Ile	Asp	Ser	Thr	Thr	Gly	Gly	Phe	Glu	Ala	Gly	Ile	Ser
		115					120					125			
Lys	Asp	Gly	Gln	Thr	Arg	Glu	His								
	130					135									

<210> 80

<211> 229

<212> PRT

<213> Eucalyptus grandis

<400> 80



Met	Gln	Ile	Phe	Val	Lys	Thr	Leu	Thr	Gly	Lys	Thr	Ile	Thr	Leu	Glu
1				5					10					15	
Val	Glu	Ser	Ser	Asp	Thr	Ile	Asp	Asn	Val	Lys	Ala	Lys	Ile	Gln	Asp
			20					25					30		
Lys	Glu	Gly	Ile	Pro	Pro	Asp	Gln	Gln	Arg	Leu	Ile	Phe	Ala	Gly	Lys
		35					40					45			
Gln	Leu	Glu	Asp	Gly	Arg	Thr	Leu	Ala	Asp	Tyr	Asn	Ile	Gln	Lys	Glu
	50					55					60				
Ser	Thr	Leu	His	Leu	Val	Leu	Arg	Leu	Arg	Gly	Gly	Met	Gln	Ile	Phe
65					70					75				80	
Val	Lys	Thr	Leu	Thr	Gly	Lys	Thr	Ile	Thr	Leu	Glu	Val	Glu	Ser	Ser
			85						90					95	
Asp	Thr	Ile	Asp	Asn	Val	Lys	Ala	Lys	Ile	Gln	Asp	Lys	Glu	Gly	Ile
			100					105					110		
Pro	Pro	Asp	Gln	Gln	Arg	Leu	Ile	Phe	Ala	Gly	Lys	Gln	Leu	Glu	Asp
		115				120						125			
Gly	Arg	Thr	Leu	Ala	Asp	Tyr	Asn	Ile	Gln	Lys	Glu	Ser	Thr	Leu	His
	130					135					140				
Leu	Val	Leu	Arg	Leu	Arg	Gly	Gly	Met	Gln	Ile	Phe	Val	Lys	Thr	Leu
145					150					155					160
Thr	Gly	Lys	Thr	Ile	Thr	Leu	Glu	Val	Glu	Ser	Ser	Asp	Thr	Ile	Asp
			165						170					175	
Asn	Val	Lys	Ala	Lys	Ile	Gln	Asp	Lys	Glu	Gly	Ile	Pro	Pro	Asp	Gln
			180					185					190		
Gln	Arg	Leu	Ile	Phe	Ala	Gly	Lys	Gln	Leu	Glu	Asp	Gly	Arg	Thr	Leu
		195					200					205			
Ala	Asp	Tyr	Asn	Ile	Gln	Lys	Glu	Ser	Thr	Leu	His	Leu	Val	Leu	Arg
	210					215					220				
Leu	Arg	Gly	Gly	Phe											
225															

<210> 81

<211> 345

<212> DNA

<213> Eucalyptus grandis

<400> 81

taataaatga	tgaatttatt	ataaacgtat	ccgtttgaga	tttttgtggg	tcataggtgt	60
atcaatttga	aatctttgat	agtaacaaaa	ataatttttag	gtagtttatg	tttttcatga	120
tataaacctt	gaaagttaat	gtactaaat	tggtatata	atattaggca	aattacaacc	180
ttaatgcaac	agttaatgac	gtgatactgt	tcagattata	gatacaatgg	ttatccttga	240
atgaataaga	agaagtccta	agggcaagtg	ctatgagctt	gcacgactgc	ttttgcgcca	300
tttttgttta	ccagcccggg	ccgtcgacca	cgcgtgcctt	atagt		345

<210> 82

<211> 72

<212> DNA

<213> Eucalyptus grandis

<400> 82

cagtagggga	cttgttcccc	caagggcacg	tgctgttggt	gaagctctgg	cgggtggatga	60
accgcgtggg	cc					72

<210> 83

<211> 544

<212> DNA

<213> Eucalyptus grandis

<400> 83  
actagtgtatt tcgtcgtctt cgtcttcttc gtcttctgga acttcgttgc tccgagcttt 60  
atcagaaccg gcgatggaaa tgaaaccctc gttctctctc cctcgtcctt ctctttcttc 120  
tatccaggag cgtttgtaca ctgggagtag agagcttctt gcgataccga aactaccctt 180  
ggacgactgg cctttttgcc tcgcgcccc tctctgagcc ggggcgcaat ttgtcccttt 240  
cccagagcga agtgtcgatt ttgtccttcc acgaggcttt acctactccc atcgcccag 300  
ccccaaagccc aggcccaaat gcctgttctt tgtggccctg ccaacattcc ctttgaaatt 360  
aaaaaattaa aaaaaaactc tctgccaggc aaaagtaaag attaacacca ccaaaattta 420  
taacaaattt atcattcatt aattttcgtt aaattttatt ttcaaattac tgagtccaat 480  
tacatgtata aattcacgga tgtatcggtt cgagatttta tcctctaatt atcattagt 540  
tatg 544

<210> 84

<211> 515

<212> DNA

<213> Eucalyptus grandis

<400> 84  
gattactata gggcacgcgt ggtcgacggc cggggctggg ctgccttctt ttaactcccc 60  
ttttttgtaa ctttttaaaa tgtagtttta aatttaattt aattactttt tatattaatt 120  
atttaccaca tcagagacaa aacaatgtct tttttgtatt ttctagtcac gtcaacatgc 180  
aaaacaacgc cattttgcac tcaccttgcc ggaaaattgc cacgtcaaca atttggctag 240  
agtggcgctt aagtgatcta ttttgctcca attttggcac ttaagtgtca ttttcctaaa 300  
ttttagcact taaagtattc ctctatgtca agttttgaca cttgggggtg actttgtcca 360  
atcataaacc gtataagttc actttaaaca aaaatggcgc aaaagcagtc gtgcaagctc 420  
atagcacttg cccttaggac ttcttcttat tcattcaagg ataaccattg tatctataat 480  
ctgaacagta tcacgtcatt aactgttgca ttaag 515

<210> 85

<211> 515

<212> DNA

<213> Eucalyptus grandis

<400> 85  
actagtgtatt tcgtcgtctt cgtcttcttc gtcttctgga acttcgttgc tccgagcttt 60  
atcagaaccg gcgatggaaa tgaaaccctc gttctctctc cctcgtcctt ctctttcttc 120  
tatccaggag cgtttgtaca ctgggagtag agagcttctt gcgataccga aactaccctt 180  
ggacgactgg cctttttgcc tcgtgcccc tctctgagcc ggggcgcaat ttgtcccttt 240  
cccagagcga agtgtcgatt ttgtccttcc acgaggcttt acctactccc atcgcccag 300  
ccccaaagccc aggcccaaat gcctgttctt tgtggccctg ccaacattcc ctttgaaatt 360  
aaaaaattaa aaaaaaactc tctgccaggc aaaagtaaag attaacacca ccaaaattta 420  
taacaaattt atcattcatt aattttcgtt aaattttatt ttcaaattac tgagtccaat 480  
tacatgtata aattcacgga tgtatcggtt cgaga 515

<210> 86

<211> 782

<212> DNA

<213> Eucalyptus grandis

<400> 86  
gagggtttca tttccatcgc cggttctgat aaagctcgga gcaacgaagt tccagaagac 60  
gaagaagacg aagacgacga cggcgacatg ccttgcttga acatctccac caacgtcagc 120  
ctcgacggcc tcgacacctc cgccattctc tccgagacca cctccggcgt cgccaagctc 180  
atcggcaagc ccgaggccta tgtgatgatt gtgttgaagg ggtcagtcct catggctttt 240  
ggtgggactg agcaacctgc tgcctatggc gagttgggtg caatcggcgg tttgaacccc 300  
gatgtgaaca agaagctgag tgctgcaatt gcttcaatcc tcgaaaccaa gctgtccatc 360

cccaagtcgc	ggttcttcct	gaaattttat	gataccaagg	gttccttctt	tggatggaat	420
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<210> 87

<211> 115

<212> PRT

<213> Eucalyptus grandis

<400> 87

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Phe	Leu	Lys	Phe	Tyr	Asp	Thr	Lys	Gly	Ser	Phe	Phe	Gly	Trp	Asn	Gly
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<210> 88

<211> 1521

<212> DNA

<213> Pinus radiata

<400> 88

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<210> 89

<211> 2590

<212> DNA

<213> Eucalyptus grandis

<400> 89

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2590

<210> 90

<211> 1172

<212> DNA

<213> Eucalyptus grandis

<400> 90

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ttgactaca	cccaaacc	aatttctaag	ttaaatcaaa	cccactgtct	aatagagata	420
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<210> 91

<211> 446

<212> DNA

<213> Eucalyptus grandis

<400> 91

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<210> 92

<211> 2119

<212> DNA

<213> Pinus radiata

<400> 92

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<210> 93

<211> 2571

<212> DNA

<213> *Eucalyptus grandis*

<400> 93

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<210> 94

<211> 1406

<212> DNA

<213> Pinus radiata

<400> 94

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<210> 95

<211> 2546

<212> DNA

<213> *Pinus radiata*

<400> 95

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<210> 96

<211> 4726

<212> DNA

<213> *Pinus radiata*

<400> 96

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<210> 97

<211> 635

<212> DNA

<213> Pinus radiata

<400> 97

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<210> 98

<211> 468

<212> DNA

<213> Pinus radiata

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<210> 99

<211> 222

<212> DNA

<213> Pinus radiata

<400> 99

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<210> 100

<211> 597

<212> DNA

<213> Pinus radiata

<400> 100

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<210> 101

<211> 669

<212> DNA

<213> Pinus radiata

<400> 101

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<211> 230

<212> DNA

<213> Pinus radiata

<400> 102

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<210> 103

<211> 596

<212> DNA  
 <213> Eucalyptus grandis

<400> 103  
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 catttcaact ctccctctct cctctctctc tgcctctcga tcgatccagc gatcttctta 540  
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 <212> DNA  
 <213> Eucalyptus grandis

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 <213> Eucalyptus grandis

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 aaaatatcaa tgttccacaa tatttttggg acaaggaac acaagattga gtcaacagtt 180  
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 tttgaaagag aaataaatat tatgatagt aagggtcttc acatggttag tttgatctgt 240  
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342

<210> 107

<211> 948

<212> DNA

<213> *Eucalyptus grandis*

<400> 107

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<210> 108

<211> 362

<212> DNA

<213> *Eucalyptus grandis*

<400> 108

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aaacacttgc	tcagacacca	tcaaatcctt	cgcaaagtct	ttttcttaca	aaaaacaaac	300
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<210> 109

<211> 326

<212> DNA

<213> *Eucalyptus grandis*

<400> 109

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gttgcatcca	tgattgttga	cttcactttt	tgctgattcc	ttcaagctgc	tgattcttca	240
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<210> 110

<211> 296

<212> DNA

<213> *Pinus radiata*

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agcctaactc gaaggaagtt cgagtaatag agtgagaaat ggatcttctt ctcctcatga 240  
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<212> DNA  
<213> Pinus radiata

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<213> Pinus radiata

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<211> 3070  
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<400> 113

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 <213> Pinus radiata

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 <211> 1169  
 <212> DNA  
 <213> Eucalyptus grandis

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 <213> Eucalyptus grandis

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<210> 118

<211> 1928

<212> DNA

<213> Eucalyptus grandis

<400> 118

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<210> 119

<211> 602

<212> DNA

<213> Eucalyptus grandis

<400> 119

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<210> 120

<211> 1326

<212> DNA

<213> Pinus radiata

<400> 120

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<210> 125

<211> 1489

<212> DNA

<213> Eucalyptus grandis

<400> 125

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<211> 1273

<212> DNA

<213> Eucalyptus grandis

<400> 126

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<210> 127

<211> 3720

<212> DNA

<213> Eucalyptus grandis

<400> 127

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<210> 128

<211> 25

<212> DNA

<213> Eucalyptus grandis

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